TABLE 3. Key References for the Radiological Fact Sheets

Isotope	References
Multiple	Argonne National Laboratory, 1993, Manual for Implementing Residual Radioactive Material Guidelines Using RESRAD, Version 5.0, ANL/EAD/LD-2, working draft for comment, September
	Argonne National Laboratory, 2001, User's Manual for RESRAD Version 6, ANL/EAD/4, July
	Eisenbud, Merril, 1987*, Environmental Radioactivity from Natural, Industrial, and Military Sources*, Third Edition, Academic Press, Inc., Orlando, Florida
	Eisenbud, Merril and Thomas Gesell, 1997*, Environmental Radioactivity from Natural, Industrial, and Military Sources*, Fourth Edition, Academic Press, San Diego, California
	International Commission on Radiological Protection, 1979, Limits for Intakes of Radionuclides by Workers, ICRP Publication 30, Part 1, Annals of the ICRP, 2 (3/4)
	International Commission on Radiological Protection, 1980, Limits for Intakes of Radionuclides by Workers, ICRP Publication 30, Part 2, Annals of the ICRP, 4 (3/4)
	International Commission on Radiological Protection, 1981, Limits for Intakes of Radionuclides by Workers, ICRP Publication 30, Part 3, Annals of the ICRP, 6 (2/3)
	International Commission on Radiological Protection, 1983, *Radionuclide Transformations, Energy and Intensity of Emissions*, ICRP Publication 38, Annals of the ICRP, 11-13
	International Commission on Radiological Protection, 1989, *Age-Dependent Doses to Members of the Public from Intake of Radionuclides*, Part 1, ICRP Publication 56, Annals of the ICRP, *20*(2)
	International Commission on Radiological Protection, 1989*, Age-Dependent Doses to Members of the Public from Intake of Radionuclides,* Part 2, ICRP Publication 67, Annals of the ICRP 23(3/4)
	International Commission on Radiological Protection, 1994, *Dose Coefficients for Intakes of Radionuclides by Workers*, ICRP Publication 68, Annals of the ICRP, *24*(4)
	National Council on Radiation Protection and Measurements, 1987, *Exposure of the Population in the United States and Canada from Natural Background Radiation,* NCRP Report 94, Washington, D.C., December 30
	Shleien, Bernard (editor), 1992, *The Health Physics and Radiological Health Handbook*, Revised Edition, Scinta, Inc., Silver Spring, Maryland
	U.S. Environmental Protection Agency, 1988, *Limiting Values of Radionuclide Intake And Air Concentration and Dose Conversion Factors For Inhalation, Submersion, And Ingestion*, Federal Guidance Report No. 11, Office of Radiation Programs, EPA-520/1-88-020, September
	U.S. Environmental Protection Agency, 1993, *External Exposure to Radionuclides in Air, Water, and Soil,* Federal Guidance Report No. 12, Office of Radiation and Indoor Air, EPA 402-R-93-081, September
	U.S. Environmental Protection Agency, 1999, *Cancer Risk Coefficients for Environmental Exposure to Radionuclides*, Federal Guidance Report No. 13, Office of Radiation and Indoor Air, EPA 402-R-99-001, September
	U.S. Nuclear Regulatory Commission, 1979, *Final Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Reactor Fuel*, Office of Nuclear Material Safety and Safeguards, Project No. M-4, NUREG-0575, August

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All *(cont'd)*	Information was also obtained from the following Internet addresses: http://atom.kaeri.re.kr/ http://cdfc.rug.ac.be/HealthRisk/default.htm http://environmentalchemistry.com/yogi/periodic/index.html http://ie.lbl.gov/fission/235ut.txt http://micronmetals.com/toc.htm http://nautilus.fis.uc.pt/st2.5/index-en.html http://nobel.scas.bcit.ca/resource/navptable.htm http://pearl1.lanl.gov/periodic/default.htm http://www.bayerus.com/msms/fun/pages/periodic/i_table.html http://www.cancer.org/downloads/STT/CancerFacts&Figures2002TM.pdf http://www.census.govhttp://www.principalmetals.com/utilities/periodic.htm http://www.chemicalelements.com/ http://www.chemsoc.org/viselements/pages/pertable_fla.htm (requires Shockwave plugin) http://www.resource-world.net/PerTable.htm http://www.speclab.com/elements/ http://www.ucc.ie/ucc/depts/chem/dolchem/html/elem/elem000.html http://www.umich.edu/~radinfo/ http://www.vcs.ethz.ch/chemglobe/ptoe/index.html http://www.webelements.com/
Americium	International Commission on Radiological Protection, 1986, *The Metabolism of Plutonium and Related Elements*, ICRP Publication 48, Annals of the ICRP, 16(2/3) Radionuclide-specific information was obtained from the following Internet addresses: http://www.encarta.msn.com/find/Concise.asp?ti=017E7000 http://www.world-nuclear.org/info/inf57.htm http://www.encyclopedia.com/printable/00435.html http://www.britannica.com/seo/a/americium/ http://www.uic.com.au/nip35.htm
Cadmium	Radionuclide-specific information was obtained from the following Internet addresses: http://minerals.usgs.gov/minerals/pubs/commodity/cadmium http://atom.kaeri.re.kr http://ntp-server.niehs.nih.gov/htdocs/8_RoC/RAC/Cadmium&cmpds.html http://www.ijc.org/boards/iaqab/meyer/cadmium.htm http://webmineral.com/data/Cadmium.html http://www.speclab.com/elements/cadmium.htm
Carbon-14	Cember, Herman, 1983*, Introduction to Health Physics*, Pergamon Press, Inc., Elmsford, New York National Council on Radiation Protection and Measurements, 1985, *Carbon-14 in the Environment,* NCRP Report 81, Washington, D.C., May 15 Radionuclide-specific information was obtained from the following Internet addresses: http://www.phschool.com/atschool/chemistry/AW/Student_Area/AWCHEM_SC5_ACT.html http://www.britannica.com/seo/n/nuclear-medicine/ http://crystal.biol.csufresno.edu:8080/projectsF98/535.html http://www.users.globalnet.co.uk/~freya01/carbon14.htm http://seattletimes.nwsource.com/news/health-science/html98/carb_082598.html
Cesium	National Council on Radiation Protection and Measurements, 1977, *Cesium-137 from the Environment to Man: Metabolism and Dose,* NCRP Report 52, Washington, D.C., January 15 Radionuclide-specific information was obtained from the following Internet addresses: http://www.encyclopedia.com/articles/02502.html http://encarta.msn.com/find/Concise.asp?ti=04B4F000
Chlorine	Radionuclide-specific information was obtained from the following Internet addresses: http://www.encyclopedia.com/articles/02695.html http://www.c3.org/ http://www.cl2.com/benefits/index.html http://www.history.rochester.edu/class/hanford/cdcPaper/onethree.html http://wwwrcamnl.wr.usgs.gov/isoig/period/cl_iig.html

Isotope	References
Cobalt	Radionuclide-specific information was obtained from the following Internet addresses: http://www.infoplease.com/ce6/sci/A0812692.html http://www.eco-usa.net/toxics/cobalt.html http://www.atsdr.cdc.gov/tfacts33.html
Curium	International Commission on Radiological Protection, 1986, *The Metabolism of Plutonium and Related Elements*, ICRP Publication 48, Annals of the ICRP, 16(2/3) Radionuclide-specific information was obtained from the following Internet addresses: http://www.encyclopedia.com/articles/03336.html http://www.britannica.com/seo/c/curium/ http://encarta.msn.com/find/Concise.asp?ti=0457F000
Europium	Radionuclide-specific information was obtained from the following Internet addresses: http://www.doegjpo.com/programs/hanf/AXReport/Report/sect03.htm http://minerals.usgs.gov/minerals/pubs/commodity/rare_earths/740301.pdf
Iodine	National Council on Radiation Protection and Measurements, 1977*, Protection of the Thyroid Gland in the Event of Releases of Radioiodine,* NCRP Report 55, Washington, D.C., August 1 National Council on Radiation Protection and Measurements, 1983*, Iodine-129: Evaluation of Releases from Nuclear Power Generation,* NCRP Report 75, Bethseda, Maryland, December 1 Radionuclide-specific information was obtained from the following Internet addresses: http://www.doh.wa.gov/hanford/publications/health/mon10.htm http://cpmcnet.columbia.edu/dept/thyroid/RAI.html
Ionizing Radiation	Agency for Toxic Substances and Disease Registry, 1997 *Toxicological Profile for Ionizing Radiation*, draft for public comment, prepared by Research Triangle Institute, September National Research Council, 1990, *Health Effects of Exposure to Low Levels of Ionizing Radiation*, BEIR V Report, report of the Committee on the Biological Effects of Ionizing Radiations, National Academy Press, Washington, D.C. U. S. Environmental Protection Agency, *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A)*, Interim Final, EPA/540/1-89/002, Office of Emergency and Remedial Response, Washington, D.C., December
Krypton	National Council on Radiation Protection and Measurements, 1975, *Krypton-85 in the Atmosphere – Accumulation, Biological Significance, and Control Technology,* NCRP Report No. 44, Washington, D.C., July 1 Radionuclide-specific information was obtained from the following Internet addresses: http://encyclopedia.com/articles/07092.html http://encarta.msn.com/index/conciseindex/34/0344A000.htm?z=1&pg=2&br=1 http://www.c-f-c.com/specgas_products/krypton.htm http://www.jamals.com/ehsan/electrical.htm
Neptunium	International Commission on Radiological Protection, 1986, *The Metabolism of Plutonium and Related Elements*, ICRP Publication 48, Annals of the ICRP, 16(2/3) Radionuclide-specific information was obtained from the following Internet addresses: http://nobel.scas.bcit.ca/resource/ptable/np.htm http://encarta.msn.com/find/Concise.asp?z=1&pg=2&ti=761564503 http://search.eb.com/bol/topic?eu=56688&sctn=1 http://www.isis-online.org/publications/fmct/primer/Section_I.html
Nickel	Radionuclide-specific information was obtained from the following Internet addresses: http://encarta.msn.com/find/Concise.asp?ti=066E6000 http://www.nipera.org/pro&use.htm
Plutonium	International Commission on Radiological Protection, 1972, *The Metabolism of Compounds of Plutonium and other Actinides,* ICRP Publication 19, May International Commission on Radiological Protection, 1986, *The Metabolism of Plutonium and Related Elements*, ICRP Publication 48, Annals of the ICRP, 16(2/3) Radionuclide-specific information was obtained from the following Internet addresses: http://www.llnl.gov/csts/publications/sutcliffe/ http://www.pu.org/ http://plutonium-erl.actx.edu/

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Potassium	Radionuclide-specific information was obtained from the following Internet addresses: http://www.encyclopedia.com/articles/10439.html http://encarta.msn.com/index/conciseindex/1C/01CB4000.htm?z=1&pg=2&br=1
Protactinium	Radionuclide-specific information was obtained from the following Internet addresses: http://education.jlab.org/itselemental/ele091.html http://www.webspinners.futura.net/apurdy/element_91_100.htm http://www.encyclopedia.com/articlesnew/10559.html http://encarta.msn.com/index/conciseindex/5C/05C22000.htm?z=1&pg=2&br=1 http://140.198.18.108/periodic/Pa.html
Radium	National Research Council, 1988, *Health Risks of Radon and Other Internally Deposited Alpha-Emitters*, BEIR IV Report, report of the Committee on the Biological Effects of Ionizing Radiations, National Academy Press, Washington, D.C. Radionuclide-specific information was obtained from the following Internet addresses: http://www.infoplease.com/ce6/sci/A0840951.html http://www.atsdr.cdc.gov/ToxProfiles/phs9022.html http://www.epa.gov/ttn/uatw/hlthef/radionuc.html
Samarium	Radionuclide-specific information was obtained from the following Internet addresses: http://minerals.usgs.gov/minerals/pubs/commodity/rare_earths/740301.pdf http://encarta.msn.com/index/conciseindex/0D/00D52000.htm?z=1&pg=2&br=1 http://www.ornl.gov/isotopes/s_sm.html http://www.encyclopedia.com/articles/11397.html http://www.geology.wisc.edu/~jill/samar.html
Selenium	Radionuclide-specific information was obtained from the following Internet addresses: http://www.lbl.gov/MicroWorlds/Wetlands/WetlandsClue1.html http://www.state.sd.us/doa/das/selenium.htm http://www.encyclopedia.com/articles/11665.html http://encarta.msn.com/index/conciseindex/22/0223E000.htm?z=1&pg=2&br=1=1 http://sutekh.nd.rl.ac.uk/cgi-bin/CoNquery?nuc=Se79
Strontium	National Council on Radiation Protection and Measurements, 1991, *Some Aspects of Strontium Radiobiology,* NCRP Report No. 110, Bethesda, Maryland., August 31 Radionuclide-specific information was obtained from the following Internet addresses: http://www.britannica.com/seo/s/strontium/ http://www.epa.gov/iris/subst/0550.htm
Technetium	Radionuclide-specific information was obtained from the following Internet addresses: http://encarta.msn.com/find/Concise.asp?ti=03A19000 http://www.encyclopedia.com/articles/12685.html
Thorium	Archer, V.E., J.K. Wagoner, and F.E. Lundin, 1973, *Cancer Mortality among Uranium Mill Workers*, Journal of Occupational Medicine, *15*:11-14 Burkart, W., 1991, *Uranium, Thorium, and Decay Products*, in Metals and Their Components in the Environment: Occurrence, Analysis, and Biological Relevance, E. Merian (editor), VCH Publications, NY National Research Council, 1988, *Health Risks of Radon and Other Internally Deposited Alpha-Emitters*, BEIR IV Report, report of the Committee on the Biological Effects of Ionizing Radiations, National Academy Press, Washington, D.C. Polednak, A.P., A.F. Stehney, and H.F. Lucas, 1983, *Mortality among Male Workers at a Thorium-Processing Plant*, Health Physics, *44*(Supplement 1):239-251 Stehney, A.F., et al., 1980, *Health Status and Body Radioactivity of Former Thorium Workers*, NUREG/CR-1420 (ANL-80-37), prepared by Argonne National Laboratory, Argonne, Ill., for U.S. Department of Energy and U.S. Nuclear Regulatory Commission, January

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	Radionuclide-specific information was obtained from the following Internet addresses: http://www.atsdr.cdc.gov/ToxProfiles/phs9025.html http://tonto.eia.doe.gov/FTPROOT/nuclear/047896.pdf http://www.thorium-waste.com/Appl.html http://www.thorium-waste.com/Radiation.html http://www.thorium-waste.com/Gensci.html http://encarta.msn.com/find/Concise.asp?ti=01C11000 http://www.infoplease.com/ce6/sci/A0848573.html http://www.britannica.com/seo/t/thorium/ http://www.encyclopedia.com/articles/08646.html
Tin	Zhang, S., et al., 1996, J. Radioanal.Nucl Chem., Letters, 212(2):93-9 Radionuclide-specific information was obtained from the following Internet addresses: http://encarta.msn.com/find/Concise.asp?ti=02ECC000 http://www.itri.co.uk/tinuses.htm http://www.environmentalchemistry.com/yogi/periodic/Sn.html
Tritium	Argonne National Laboratory, 1999, *Risk/Impact Technical Report for the Hanford Groundwater/Vadose Zone Integration Project*, prepared for the U.S. Department of Energy, December Makhijani, A., 1999, *Statement on Tritium before the House Committee on Intergovernmental Coordination, State of Georgia*: Institute for Energy and Environmental Research, October 19, accessed at http://www.ieer.org/comments/tritstmt.html National Council on Radiation Protection and Measurements, 1979, *Tritium in the Environment*, NCRP Report No. 62, Washington, D.C., March 9 U.S. Department of Energy, 1999, *Final Environmental Impact Statement for the Production of Tritium in a Commercial Light Water Reactor*, DOE/EIS-0288, Appendix C, March U.S. Department of Energy, 1999, Final Environmental Impact Zerriffi, Hisham, 1996, *Tritium: The environmental, health, budgetary, and strategic effects of the Department of Energy's decision to produce tritium*, Institute for Energy and Environmental Research, March 20, accessed at http://www.ieer.org/reports/tritium.html
Uranium	Agency for Toxic Substances and Disease Registry, 1990, *Toxicological Profile for Uranium*, TP-90/29, prepared by Syracuse Research Corporation, December Archer, V.E., J.K. Wagoner, and F.E. Lundin, 1973, *Cancer Mortality among Uranium Mill Workers*, Journal of Occupational Medicine, *15*:11-14 Argonne National Laboratory, 1999, *Risk/Impact Technical Report for the Hanford Groundwater/Vadose Zone Integration Project*, prepared for the U.S. Department of Energy, December Berlin, M., and B. Rudell, 1986, *Uranium*, in Handbook on the Toxicology of Metals, 2nd ed., L. Friberg, G.F. Nordberg, and V. Voik (editors), Elsevier Science Publishers, New York Burkart, W., 1991, *Uranium, Thorium, and Decay Products*, in Metals and Their Components in the Environment: Occurrence, Analysis, and Biological Relevance, E. Merian (editor), VCH Publications, New York, pp. 1275-1287 Dreesen, D.R., et al., 1982, *Mobility and Bioavailability of Uranium Mill Tailings Contaminants*, Environmental Science and Technology, *16*(10):702-706 Hodge, H.C., J.N. Stannard, and J.B. Hursh (editors), 1973, *Uranium-Plutonium Transplutonic Elements*, Springer-Verlag, New York Maynard, E.A., and H.C. Hodge, 1949, *Studies of the Toxicity of Various Uranium Compounds When Fed to Experimental Animals*, in The Pharmacology and Toxicology of Uranium Compounds, C. Voegtlin and H.C. Hodge (editors), McGraw-Hill Book Company, New York, Vol. I, pp. 309-376 Morrow, P.E., et al., 1982, *Metabolic Fate and Evaluation of Injury in Rats and Dogs Following Exposure to the Hydrolysis Products of Uranium Hexafluoride*, NUREG/CR-2268, prepared by University of Rochester, Department of Radiation Biology and Biophysics, Rochester, N.Y., for U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Washington, D.C., December National Research Council, 1988, *Health Risks of Radon and Other Internally Deposited Alpha-Emitters*, BEIR IV Report, report of the Committee on the Biological Effects of Ionizing Radiations, National Academy Press, Washington, D.C.

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	Radionuclide-specific information was obtained from the following Internet addresses: http://www.britannica.com/seo/u/uranium/ http://www.atsdr.cdc.gov/ToxProfiles/phs9029.html
Depleted uranium (DU)	ATSDR (Agency for Toxic Substances and Disease Registry), 1999, *Toxicological Profile for Uranium. Update,* U.S. Department of Health and Human Services, Public Health Service, September EPA (U.S. Environmental Protection Agency), 1992, *Overview of Air Pathway Assessments for Superfund Sites (Revised), Interim Final,* Office of Air Quality Planning and Standards, Research Triangle Park, N.C. Air/Superfund National Technical Guidance Study Series, Report ASF-1a, Vol. I. November EPA (U.S. Environmental Protection Agency), 1996, *Soil Screening Guidance, Technical Background Document, Appendix B: Route-to-Route Extrapolation of Inhalation Benchmarks,* Office of Solid Waste and Emergency Response, Washington, D.C. EPA/540/R-95/128, July
Depleted uranium *(cont'd)*	EPA (U.S. Environmental Protection Agency), 2001, *Integrated Risk Information System (IRIS)*. Online database, Substance file for uranium, soluble salts, Office of Research and Development, National Center for Environmental Assessment, Cincinnati, Ohio, http://www.epa.gov/ngispgm3/iris/index.html, June Fisher, D. R., et al., 1994, *Uranium Hexafluoride Public Risk, Letter Report,* PNL-10065, Pacific Northwest Laboratory, Health Protection Department, Richland, Washington, August Gilman, A. P., et al., 1998, Uranyl nitrate — 91-Day Toxicity Studies in the New Zealand White Rabbit. *Toxicol. Sci.* 41(1):129-137, January ICRP (International Commission on Radiological Protection), 1994, *Human Respiratory Tract Model for Radiological Protection,* ICRP Publication 66, Pergamon Press, Oxford, United Kingdom Maynard, E. A., and Hodge, H. C., 1949, Studies of the Toxicity of Various Uranium Compounds when Fed to Experimental Animals. In: *Pharmacology and Toxicology of Uranium Compounds*, National Nuclear Energy Series (VI), pp. 309-376 (Voegtlin, I. C., and Hodge, H. C., Eds.), New York, McGraw-Hill McGuire, S. A. 1991, *Chemical Toxicity of Uranium Hexafluoride Compared to Acute Effects of Radiation,* NUREG-1391, Final Report. U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Washington, D.C., February U.S. Nuclear Regulatory Commission, 1994, 10 CFR Part 19, Certification of Gaseous Diffusion Plants Final Rule, Discussion on Section 76.85, "Assessment of Accidents," *Fed. Reg*. 59(184):48944. September 23 U.S. Nuclear Regulatory Commission, 2001, 10 CFR Part 20, Standards for Protection Against Radiation, Appendix B: Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage
Zirconium	Radionuclide-specific information was obtained from the following Internet addresses: http://encarta.msn.com/index/conciseindex/53/053DF000.htm?z=1&pg=2&br=1 http://www.amm.com/ref/zirc.htm http://search.eb.com/bol/search?type=topic&&query=Zirconium&Dbase=Articles http://www.ornl.gov/isotopes/s_zr.html

CFR = Code of Federal Regulations